

REMARKS

Reconsideration of this application courteously is solicited. Claims 1-8 remain pending in this application. Claims 4-8 are allowed. Claims 1-3 are rejected.

The June 23, 2005 Office Action required amendment of the title. The title has been amended in accordance with the subject matter of the claims hereby. Withdrawal of the objection to the title is solicited.

Acknowledgement is made of the continued consideration of claims 4-8 as allowed. Early allowance of these claims has been appreciated.

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) as purportedly anticipated by U. S. Patent 5,774,837 to Yeldener et al. (Yeldener). This rejection is traversed.

Each of rejected claims 1-3 is similar in describing conditions where pitch period detecting processing is reduced. For instance, according to claim 1, when the detected pitch period does not exceed a reference value, the number of times that such processing is performed is reduced by taking into account another (recorded) waveform. Claim 2 specifically describes a judgment for determining whether or not pitch detection processing should be reduced. Claim 3 is similar to claim 2, in this regard, in reciting second means for judging the detected pitch period, and then the third and fourth means for controlling pitch period processing based upon the judgment result of such second means.

In order to ensure full understanding of rejected claims 1-3, reference will be made to one of Applicant's, exemplary, preferred embodiments. As seen from Figure 1, the input voice signal is applied directly to both a pitch period detector 1, and a time-axis compressing device 4. The compressing device 4 receives either a pitch detection signal from detector 1 or a previously stored pitch period signal from buffer 3, depending upon the position of switch 5. The condition of switch 5, in turn, is controlled by pitch period judging device 2 which compares a branching variable (upd) provided from the detector 1 with a threshold value set at setting device 6. As

long as the value supplied from detector 1 exceeds the threshold value, judging device 2 maintains switch contact (a) connected to the compressing device 4 so that the compressing device subjects the input voice signal to compression in accordance with the pitch period signal fed from detector 1 by the switch 5. However, when the upd value from detector 1 falls below the threshold, judging device 2 changes the position of switch 5 so that input from buffer 3 is fed to the compressing device 4, and pitch period detection processing in connection with detector 1 is not necessary. This, in the wording of claim 1, reduces "the number of times of pitch period detecting processing."

Both Applicant and the undersigned attorney have considered the Yeldener patent in connection with the requirements of claims 1-3. Neither Applicant nor the undersigned could locate any teaching or suggestion in Yeldener of reducing the number of pitch period detection processings based upon comparison of a detected pitch period with a (predetermined) reference value. Yeldener is a complex patent describing many important aspects of digital encoding and decoding of speech. Generally, Yeldener is concerned with the division of a speech signal into segments, and then detecting the presence of a fundamental frequency for each such segment. Yeldener teaches separating the signal in each segment into voice and unvoiced portions, and directing the portions along separate data paths. In no way was Yeldener seen to teach or suggest reduction of pitch period detection processing, and certainly not in the manner described by the Applicant's claims 1-3. For at least these reasons, it is submitted that Yeldener would not have taught or suggested the subject matter of any of claims 1-3 to those of ordinary skill in the art. Hence, the rejection is overcome and should be withdrawn.

In view of the foregoing amendments and remarks, it courteously is submitted that all of the claims are allowable and that the application is condition for allowance. Favorable action in this regard earnestly is solicited.

Respectfully submitted,
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Dated: September 22, 2005